



## CITY OF LINCOLN - NEBRASKA

### LINCOLN WASTEWATER SYSTEM DEPARTMENT OF PUBLIC WORKS AND UTILITIES

"Lincoln will continue to have managed and contiguous growth."

"Funds for improvements in new major drainage basins to the southwest and to the east should provide the opportunity for development to begin in these areas within the next 12 years."

"The City's collection (sewer) system, in general, will continue to be a gravity fed system that is designed to accommodate urbanization of drainage basins and sub-basins."

*— excerpts from the Lincoln and Lancaster  
County 2025 Comprehensive Plan —*



## STEVENS CREEK BASIN TRUNK SEWER

July 2004



## Background Information

The Lincoln and Lancaster County 2025 Comprehensive Plan (Comp Plan) was formally adopted May 28, 2002. It identified the need to maintain a healthy climate for locally owned and operated commerce and trade. The Comp Plan further recognized government's responsibility to preserve unique and sensitive habitats and to endorse integration of natural systems into developments.

Historical population growth rate for Lincoln is 1.5% per year. The Comp Plan identifies land areas needed to service that population growth.

The Comp Plan also states that utility improvements shall be in accordance with the Lincoln Wastewater Facilities Plan. Keeping in line with these previous planning documents, the City of Lincoln recently initiated a Preliminary Routing Study and Design Project to assess potential main (trunk) sewer alignments to serve citizens of northeast and eastern Lincoln as the City continues to grow.

## The Challenge

Previous planning efforts identified the lower western Stevens Creek watershed as a near-term development growth area. Therefore, sewer service will need to be provided to this area to support growth. City staff and local stakeholders have come to a consensus that a new main sewer pipeline from the Northeast Wastewater Treatment Plant (NE WWTP) southeasterly to and along Stevens Creek should be designed and constructed to serve citizens of northeast and eastern Lincoln as the City continues to grow.

## Key Issues/Findings

There are several key issues that will need to be addressed concurrently with the design and construction of the Stevens Creek Basin Trunk Sewer.

- Service Area
- Sewer Alignment/Route
- Right-of-Way Acquisition
- Restoration following construction
- Schedule of proposed improvements





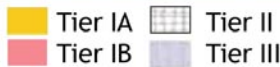
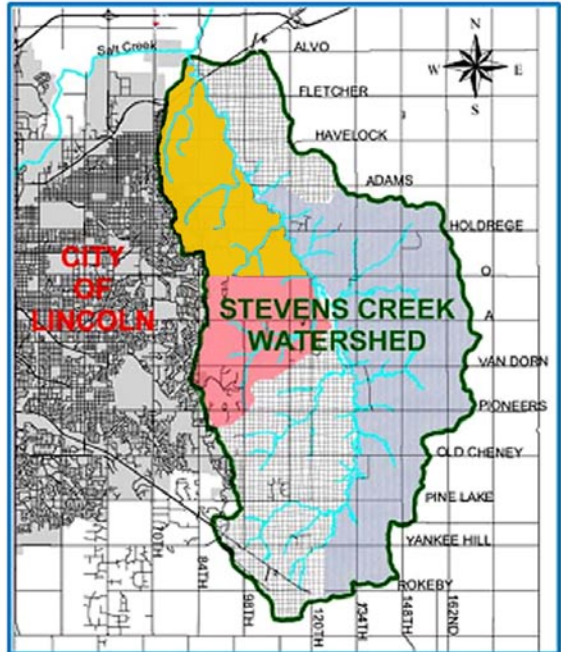
## Service Area

Preliminary design of the gravity fed collection system for the entire basin has been initiated. Final design and construction of the collection system will occur in phases to accommodate orderly growth as described in the Comp Plan. Areas designated in the Comp Plan for near term development are generally contiguous to existing development and are likely to be provided with basic infrastructure within the first 12 years of the adoption of the Comp Plan. The Comp Plan identified this sequence of development as the most cost-effective for providing infrastructure improvements in the basin. Initially, construction of the collection system will commence for the Tier IA Service Area. The Tier IA Service Area generally includes the area west of Stevens Creek and north of O Street.

The next area for development (Tier IB) lacks almost all infrastructure required to support development. In the Tier IB area, the community will maintain present uses until urban development can commence. Infrastructure improvements to serve Tier IB, Tier II and Tier III areas will not initially be included in the City's CIP, but will be considered in the long term capital improvement planning process.

## Sewer Alignment/Route

At the March 30, 2004 Public Meeting, input was solicited from local stakeholders concerning the route of the sewer pipeline. A gravity collection (sewer) system is planned to serve the basin at build-out. Various preliminary routes were identified and evaluated on the basis of ecological, geological, topographical and economical considerations. The preferred sewer pipeline alignment generally follows the west side of the creek except for two areas where the pipe crosses to the east side of the creek to avoid natural occurring topography. Information received at the March 30 meeting is being used in determining the final alignment.



### Right-of-Way (ROW)



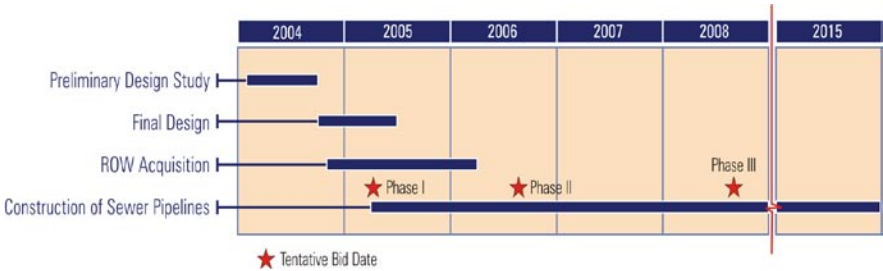
After completion of the design phase, property owners will be contacted to acquire the ROW necessary to construct the project. ROW width will vary along the main sewer pipeline route due to varying pipe sizes. Generally, the ROW width will be greater at the north end of the basin and become progressively narrower as the pipe is constructed upstream, toward the south end of the basin.

### Restoration

Contractors will be obligated to restore the ground surface to its pre-construction condition before the pipeline was installed. Pre-construction conditions will be documented along the sewer pipeline route by photography. Farm operations may be continued over the buried pipeline after the project is completed.

### Schedule of Proposed Improvements

The timeline for Construction of proposed improvements located in Tier IA, as defined in the current Capital Improvement Program, is presented below.



July 2004

Graphics courtesy of Carollo Engineers

